

Appln. No. 10/698,722
Amendment dated November 12, 2007
Reply to Office Action of May 18, 2007

REMARKS/ARGUMENTS

Reconsideration of the above-identified application respectfully requested.

The § 112 Rejection

Claims 1-20, 23-26, and 29-35 stand rejected under the provisions of 35 U.S.C. § 112, first paragraph, as "bead" is not described in the application. The application states, *inter alia*:

The bead (including for present purposes, *inter alia*, small globules, cylindrical bodies, platelets, and the like) is contained in a polymer (e.g., polyurethane) matrix that also acts as membrane that allows the active ingredient to move to its surface.

Application at p. 8, ll. 5-8.

Thus, "bead" is defined in the application in addition to its ordinary dictionary meaning of a small round object. Thus, Applicants agree with the Examiner that "bead" is to be given a broad interpretation. Of importance is not the shape of the "bead", but rather its content: colloidal clay and adsorbed pest control agent. Withdrawal of this ground of rejection of the claims, then, respectfully requested.

The Art Rejection

Claims 1-20, 23-26, and 29-35 stand rejected under the provisions of 35 U.S.C. § 103(a) as being unpatentable over Kodama (U.S. Patent No. 5,747,510) and Van Voris (U.S. Patent No. 5,801,194) in view of Knudson (U.S. Patent No. 4,849,006) and further in view of Beall (U.S. Patent No. 5,730,996).

Applicants traverse the rejections of the claim and the grounds therefor.

The cited art contacts nanoclay and polymer and an active ingredient and sometimes a solvent. Applicants' method has several advantages that, perhaps, need to be clarified. Initially, Applicant's preform "a bead comprising colloidal clay and adsorbed pest control agent" and then the "bead is dispersed in said polymer component". This is important in that the primary citation, Kodoma, uniformly mixes all of the ingredients together, as taught in the Examples. Van Voris expressly teaches and claims mixing the polymers and insecticides together before forming the release device. Beall states that the phyllosilicate is activated "by water, an intercalant polymer, a water-miscible organic solvent, or mixtures therof, followed by sorption of an intercalant pesticide." Beall at col. 9, ll. 45-50.

Thus, each of the primary citations express teach a different process than is taught and claimed by Applicants. Advantages realized by Applicants' different process, include:

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1. The active ingredient/nanoclay pellet will contain more active ingredient that can allow for a longer product life-span.
2. For a given life-span, fewer pellets can suffice.
3. Preforming can provide a greater variety of release rates because there are more different positions that are occupied. Some positions tightly bind the active ingredient, others weakly bind it. This phenomenon can translate into a smoother release of active ingredient.
4. During the product lifespan, some polymers may become bound to the nanoclay as the active ingredient departs. This can increase the tortuosity of the product; thus, prolonging the lifespan of the product.

The bottom line is that preforming adds to product life and reduces costs per unit time that the product provides protection. Applicants' process, then, is performed with different steps than are proposed in the art and achieves unobvious advantages by dint of such different process steps. The combination of art cited against the claims cannot render obvious the claims, as such art combination is consonant in conducting different process steps and do not provide any reasons within the four corners of their teachings to the skilled artisan as to why their process steps should be conducted in a different order to make a different product.

Conclusion

In view of the amendments and remarks submitted herewith, allowance of the claims and passage to issue of this application respectfully is requested.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being sent by facsimile transmission on November 12, 2007 to the Commissioner for Patents at 571-273-8300.


Jane Keeney